CLAIMS

What is claimed is:

1. An electric device comprising:

an exposed surface that:

exhibits substantially uniform values for an optical property; and

is substantially transparent to visible light; and

a plurality of thin film stacks:

disposed between a substrate and the exposed surface;

laterally displaced one to another; and

each having a top surface that exhibits a value for the optical property that is different from a value for the optical property of at least one other said top surface.

2. An electrical device as described in claim 1, wherein when the substantially uniform values for the optical property are plotted on a graph having a first axis that describes the values of the optical property and a second axis that describes wavelengths of visible light, the plotted substantially uniform values are substantially the same over a substantial portion of the wavelengths of visible light.

3. An electrical device as described in claim 1, wherein one or more said thin film stacks includes a portion of an electrical component.

4. An electrical device as described in claim 1, wherein one or more said thin film stacks includes a spectral normalization structure that normalizes the optical property over the exposed surface.

5. An electrical device as described in claim 4, wherein the normalized optical property over the top surface gives the exposed surface a uniform color.

6. An electrical device as described in claim 1, wherein each said thin

film stack is substantially transparent to visible light through the top surface thereof.

7. An electrical device as described in claim 1, wherein the optical property is selected from the group consisting of:

transmission;

reflection; and

absorption.

8. An electrical device as described in claim 1, wherein the exposed surface has rounded edges.

9. An electrical device comprising a plurality of laterally displaced regions each being substantially transparent to visible light, wherein:

each said region includes a normalized surface that has an optical property that has a normalized value that is substantially the same, one to another;

one said region includes a portion of an electrical component; and

at least one said region has beneath the normalized surface of the at least one said region:

an additional surface that has a value for the optical property that is not substantially the same as the normalized value; and

a spectral normalization structure that is disposed with the additional surface such that the normalized surface of the at least one said region exhibits the normalized value.

10. An electrical device as described in claim 9, wherein the at least one said region that includes the spectral normalization structure also includes the portion of the electrical component.

11. An electrical device as described in claim 9, wherein the visible light is included in a range of wavelengths of approximately 400 nm to approximately

700 nm.

12. An electrical device as described in claim 9, wherein the plurality of regions has a substantially uniform color when viewed by a human eye.

13. An electrical device as described in claim 9, wherein the optical property is selected from the group consisting of:

transmission;

reflection; and

absorption.

14. An electrical device as described in claim 9, wherein:

the electrical component is a semiconductor device; and

the plurality of laterally displaced regions are disposed over a substrate.

15. An electrical device as described in claim 9, wherein each said normalized surface has rounded edges.

16. An integrated circuit comprising:

a first thin-film stack over a substrate:

being substantially transparent to visible light through a first surface thereon; and

having an optical property of a first value; and

a second thin-film stack, laterally displaced from the first thin-film stack, over the semiconductor substrate, the second thin-film stack:

being substantially transparent to visible light through a second surface thereon;

having the optical property of a second value;

including at least a portion of a semiconductor device beneath the second surface; and

having a third surface that has the optical property of a third value, wherein:

a spectral normalization structure is disposed with the third surface; and

the first and second values are substantially the same but are not substantially the same as the third value.

17. An integrated circuit as described in claim 16, wherein the optical property is selected from the group consisting of:

transmission;

reflection; and

absorption.

18. An integrated circuit as described in claim 16, wherein the first and second surfaces have rounded edges.

19. An integrated circuit as described in claim 16, wherein one or more optical diffuser sheets are disposed over the first and second surfaces.

20. An integrated circuit comprising:

a first thin-film stack over a substrate:

being substantially transparent to visible light through a first surface thereon;

having an optical property of a first value; and

including at least a portion of a semiconductor device beneath the first surface; and

a second thin-film stack, laterally displaced from the first thin-film stack, over the substrate, the second thin-film stack:

being substantially transparent to visible light through a second surface thereon;

having the optical property of a second value;

having a third surface that has the optical property of a third value, wherein

a spectral normalization structure is disposed with the third

surface; and

the first and second values are substantially the same but are not substantially the same as the third value.

21. An integrated circuit as described in claim 20, wherein the optical property is selected from the group consisting of:

transmission;

reflection; and

absorption.

22. An integrated circuit as described in claim 20, wherein the first and second surfaces have rounded edges.

23. An integrated circuit as described in claim 20, wherein one or more optical diffuser sheets are disposed over the first and second surfaces.

24. An apparatus comprising a substrate over which a plurality of regions are formed and laterally displaced one to another;

wherein each said region:

is substantially transparent to visible light; and

includes thereon a normalized surface having an optical property with a normalized value that is substantially the same at each respective wavelength of visible light as that of the other said regions;

wherein:

one said region includes at least a portion of an electrical component; and

at least one said region includes beneath the normalized surface thereon:

an additional surface having a value for the optical property that is not substantially the same as the normalized value at each respective wavelength of visible light; and

a spectral normalization structure that is disposed with

the additional surface such that the normalized surface of the at least one said region has the normalized value that is substantially the same at each respective wavelength of visible light as that of the other said regions.

25. An apparatus as described in claim 24, wherein the at least one said region that includes the spectral normalization structure also includes the portion of the electrical component.

26. An apparatus as described in claim 24, wherein the plurality of regions has a substantially uniform color when viewed by a human eye.

27. An apparatus as described in claim 24, wherein the optical property is selected from the group consisting of:

transmission;

reflection; and

absorption.

28. An apparatus as described in claim 24, wherein:

the electrical component is a semiconductor device; and

the plurality of laterally displaced regions are disposed over a substrate.

29. An apparatus as described in claim 24, wherein each said normalized surface has rounded edges.

30. A composition comprising a spectral normalization material that is disposed with at least one region of a plurality of laterally displaced regions, wherein:

each said region being substantially transparent to visible light and including a normalized surface having an optical property that has a normalized value that is substantially the same, one to another;

one said region including one or more materials that form at least a portion

of an electrical component; and

at least one said region including beneath the surface;

an additional surface having a value for the optical property that is not substantially the same as the normalized value; and

the spectral normalization material that normalizes the optical property for the at least said region such that the at least one said region has the normalized surface having the optical property that has the normalized value.

31. A composition as described in claim 30, wherein the optical property is selected from the group consisting of:

transmission;

reflection; and

absorption.

32. A display device comprising:

a housing;

a light source disposed within the housing; and

a substantially transparent device attached to the housing through which light is transmitted from the light source, wherein the substantially transparent device includes:

a substrate;

an exposed surface that:

exhibits substantially uniform values for an optical property; and

is substantially transparent to visible light; and

a plurality of thin film stacks:

disposed between the substrate and the exposed surface;

laterally displaced one to another; and

each having a top surface that exhibits a value for the optical property that is different from a value for the optical property of at least one other said top surface.

33. A display device as described in claim 32, wherein one or more said thin film stacks includes a portion of an electrical component.

34. A display device as described in claim 32, wherein one or more said thin film stacks includes a spectral normalization structure that substantially normalizes the optical property over the exposed surface.

35. A display device as described in claim 34, wherein the normalized optical property over the top surface gives the exposed surface a substantially uniform color.

36. A display device as described in claim 32, wherein each said thin film stack is substantially transparent to visible light through the top surface thereof.

37. A display device as described in claim 32, wherein the optical property is selected from the group consisting of:

transmission;

reflection; and

absorption.

38. A method comprising:

in an electrical device comprising a plurality of laterally displaced regions each being substantially transparent to visible light, wherein:

each said region including a normalized surface having an optical property having normalized values that are substantially the same at each respective wavelength of visible light, one to another;

one said region including at least a portion of an electrical component; and

at least one said region includes beneath the normalized surface:

an additional surface having values for the optical property

that are not substantially the same as the normalized values at each respective wavelength of visible light; and

a spectral normalization structure that is disposed with the additional surface such that the normalized surface of the at least one said region exhibits the normalized values,

transmitting light through the plurality of laterally displaced regions, wherein the one said region including the electrical component is substantially visually imperceptible by a human eye that views the transmitted light.

39. A method comprising:

analyzing an electrical device that includes a plurality of laterally displaced regions each being substantially transparent to visible light, wherein:

one said region including at least a portion of an electrical component; and

a surface of a first said region has an optical property having a value that is not substantially the same as a value of the optical property of a surface of a second said region; and

forming, based on the analysis, a spectral normalization structure that is disposed with at least one of the first and second said regions such that each said region of the plurality of regions includes a normalized surface having a normalized value for the optical property that is substantially the same, one to another.

40. A method as described in claim 39, wherein the spectral normalization structure is disposed between layers that form the electrical component.

41. An electrical device formed by the method of claim 39.

42. An electrical device comprising a plurality of laterally displaced regions each being substantially transparent to visible light, wherein:

each said region having a normalized surface that has an optical property

that has a normalized value that is substantially the same, one to another;

one said region including at least a portion of a means for providing an electrical function; and

at least one said region including beneath the normalized surface of the at least one said region:

an additional surface having a value for the optical property that is not substantially the same as the normalized value; and

means, disposed with the additional surface, for normalizing the optical property such that the normalized surface of the at least one said region has the normalized value.